

**IN THE CLAIMS:**

Please cancel claims 1-16 without prejudice to or disclaimer of the subject matter recited therein.

Please add new claims 17-24 as follows:

**LISTING OF CURRENT CLAIMS**

Claims 1-16. (Canceled)

Claim 17. (New) A cold plate with an inlet and an outlet for a fluid comprising:

- a) a base having a groove having first and second ends, the first end being connected to the inlet and the second end connected to the outlet;
  - 5 b) a plate connected to the base covering the groove; and
  - c) at least one vortex generator located on a surface of the plate and aligning with and extending into the groove of the base, each of the at least one vortex generator having a first pair of unparallel and symmetrical ribs, each of the first pair of unparallel and symmetrical ribs having:
    - 10 i) parallel front and rear surfaces extending perpendicular to the surface of the plate;
    - ii) first, second, and third edges located between the parallel front and rear surfaces, the first edge being connected to the plate;
    - 15 and
    - iii) a sharp portion located between the second and third edges and extending upwardly toward the base,
- first ends of the first pair of unparallel and symmetrical ribs are positioned a contraction distance apart, and second ends of the first pair of unparallel and symmetrical ribs are positioned a expansion distance apart, the fluid passing between the first pair of unparallel and symmetrical ribs, the contraction distance is smaller than the expansion distance.
- 20

Claim 18. (New) The cold plate according to claim 17, wherein each of the second and the third edges have equal lengths, and each of the parallel front and rear surfaces of the two unparallel and symmetrical ribs are isosceles triangles.

Claim 19. (New) The cold plate according to claim 17, wherein one of the second and the third edges is positioned perpendicular to the surface of the plate and each of the parallel front and rear surfaces of the two unparallel and symmetrical ribs are right triangles.

Claim 20. (New) The cold plate according to claim 19, wherein the sharp portion is located on the first end of each of the two unparallel and symmetrical ribs.

Claim 21. (New) The cold plate according to claim 19, wherein the sharp portion is located on the second end of each of the two unparallel and symmetrical ribs.

Claim 22. (New) The cold plate according to claim 17, wherein the inlet and the outlet are located on the plate, the inlet is connected to an input tube receiving a fluid, the outlet is connected to an output tube discharging the fluid.

Claim 23. (New) The cold plate according to claim 17, wherein each of the at least one vortex generator includes a second pair of unparallel and symmetrical ribs, first ends of the second pair of unparallel and symmetrical ribs are positioned the expansion distance apart, and second ends of the second pair of unparallel and symmetrical ribs are positioned the contraction distance apart, the second ends of the first pair of unparallel and symmetrical ribs are positioned adjacent to the first ends of the second pair of unparallel and symmetrical ribs.

Claim 24. (New) The cold plate according to claim 17, wherein the base and the plate are integrally formed.